TECHNICAL REPORT UKR-14
UKRAINE PRODUCT: NARRATIVE II-G

STRENGTHENING CLINICAL AND ECONOMIC ASPECTS OF FAMILY MEDICINE IN THE L'VIV OBLAST

OCTOBER 1996

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STRENGTHENING CLINICAL AND ECONOMIC ASPECTS OF FAMILY MEDICINE IN THE L'VIV OBLAST

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October 21, 1996

Prepared Under Task 331
Submitted by the Zdrav*Reform* Program to:
AID/ENI/HR/HP

AID Contract No. CCN-0004-C-00-4023-00
Managed by Abt Associates Inc.
with offices in: Bethesda, Maryland, U.S.A.
Moscow, Russia; Almaty, Kazakstan; Kiev, Ukraine

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ACRONYMS

ALOS	Average Length of Stay
CH1	City Hospital #1
ENT	Ear, Nose, Throat
FTE	Full-time equivalent
Hr	Hrivna (Ukrainian currency)
ICD9	International Classification of Diseases, Version 9
IDS	Intensive Demonstration Site
mg	milligram
PHC	Primary Health Care
RVU	Relative Value Unit
ZRP	Zdrav*Reform* Program

EXECUTIVE SUMMARY

The Ukrainian system of health care is in crisis. The shrinking national economy no longer supports the expensive, inefficient, centrally controlled, specialist-oriented, prior Soviet system. Change is inevitable, and the time is ripe for the Zdrav*Reform* Program (ZRP) to promote the changes most in the interest of the Ukrainian people. This clearly includes strengthening primary health care. By building long-term relationships between patients and competent physicians, primary health care provides the best health care at the least cost. This executive summary presents the main findings and recommendations proposed by Zdrav*Reform* as a result of L'viv (family medicine clinics) and national-level activities (Dneprodzerzhinsk and National Family Medicine Roundtable).

There are two important clinical approaches to strengthening primary health care in Ukraine. ZRP believes that establishing either small multi-specialty groups combining principally internists, pediatricians and gynecologists, or small groups of family medicine doctors are valid approaches to strengthening primary health care in Ukraine and should be supported on an experimental basis for eventual national expansion. Both have generated positive results. Key to the success of either approach is to develop long-term patient-provider relationships. This is most easily achieved with a family medicine doctor, since one physician can take care of a patient from birth to death, but with careful attention strong patient-provider relationships can also occur in a multi-specialty group.

In the short term, Ukraine should strengthen primary health care by reorganizing internists, pediatricians, and gynecologists as small multi-specialty group practices, or by retraining them as family medicine physicians through four-month short courses such as the one which is given at L'viv Medical University. The first is politically and economically feasible because of the large number of such physicians that already exist and need employment. The second enhances the skills of such physicians to deal with 90% of patients' complaints at little additional cost.

In the long term, Ukraine should continue to promote multi-specialty primary health care groups, but should also encourage the expansion of family medicine practice as a major component of the primary health care system. This will require developing a clear definition of what family medicine is, legalizing family medicine as its own specialty, and creating formal training programs for new medical students. Importantly, family medicine does not require having extensive knowledge of all specialties; rather, it requires having selective knowledge of certain specialties to be able to treat 90% of complaints presented by patients.

Clinical and management evidence suggest that the best approach to strengthening primary health care is to offer it in detached units easily accessible to the population rather than in departments within existing polyclinics. Clinical observations have shown that family medicine doctors in polyclinics have a much higher referral rate to specialists

than those located in detached family medicine or small multi-specialty groups. Referral rates to specialists and hospitals is about 5% of the visits compared to more than 30% in the old system. In the family medicine ambulatories, patients and doctors were already acquainted, patients were treated with greater dignity and as a result, there was more discussion between patient and doctor on health issues. Preliminary evidence suggests that the mortality among working-age men is decreasing in the areas served by the detached ambulatories. Laboratory diagnosis within the ambulatories was limited, but good use was made of available laboratories in other facilities. The potential for economic savings are substantial given that one ambulatory with six physicians serves some 10,000 persons. In the former system, some 20 to 40 physicians served a population of about 10,000 persons.

Patient satisfaction surveys show that patients have a higher level of satisfaction from services provided in detached ambulatories than in departments within polyclinics. The survey showed by a wide margin that family physician ambulatories showed the patients more kindness and friendliness, that the patients did not want to change physicians, and that they would recommend the facility to others.

More attention should be paid to the operational aspects of service delivery. These include: (a) Improved utilization of para-medical personnel to receive patients into the ambulatory and to initiate the visit by entering blood pressure, pulse, body weight, temperature, and brief history; to control patient flow through the facility; to assist the doctor in record keeping, patient instructions, administration of medication and immunizations; and to perform general health education. (b) Utilization of nurses for home visits. (c) Enhanced courtesy shown by the physician to the patients, thereby enhancing patient self esteem, compliance, verbal interaction and potential for patient instruction. (d) Increased emphasis on educating the patient, both about his/her own illness and to encourage healthy lifestyles. (e) Improved utilization of office space through multi-functional use of rooms, possible use of patient scheduled appointments, availability of patient educational reading materials in the waiting area, posted or printed children's growth and development charts. (f) Improved communication among physicians through interpersonal contacts, telephone, and written word (e.g. conferences, consultations, peripheral clinics).

Implementing macro- and micro-economic incentives that promote the growth of primary health care and family medicine is critically important for the success of either the multi-group or family medicine approach to primary health care. Policy makers should move rapidly to implement more flexible public budgeting payment methods (e.g. moving away from line-item per bed or per visit budgeting) including experimentation with global budgeting, partial capitation, fundholding mechanisms, and selective fee-for-service. For the family medicine model, policy makers should move rapidly to implement a salary structure that encourages specialists and medical students to become family medicine doctors and recognizes that family medicine doctors have more

responsibility than polyclinic internists, gynecologists, or pediatricians. Family medicine salaries should be higher than the salaries of these polyclinic specialists.

Policy makers should permit institution of a system of user fees that encourages the patient to use the referral system appropriately (e.g. encouraging the use of primary care as the first point of contact and discouraging self-referral to polyclinics and hospitals) and that generates additional sources of revenue to be reinvested in primary health care services. Fees should be lower at primary health care outpatient centers to encourage patients to use these centers as their first contact. Additional surcharges could be requested of patients who bypass outpatient centers and go directly to polyclinics. Additional sources of private funding such as through enterprise contracts should be encouraged.

Primary health care groups, including family medicine practices, should be given substantial levels of management and financial autonomy. Lessons from around the world show that decentralizing management and financial responsibility to those managers closest to operations improves the efficiency and effectiveness of services. These managers are most familiar with the operations of their departments and the needs and preferences of their patients.

As alternative payment methods are introduced, more attention should be paid to business/finance aspects of running PHC ambulatories. This includes establishing separate ambulatory budgets, budget performance reports, productivity performance reports, financial mechanisms to encourage appropriate referrals and discourage inappropriate referrals, systems of internal control and cash management (especially with user fees). PHC ambulatories should hire or train existing staff to become practice managers who have the responsibility to supervise and monitor all non-clinical aspects of clinic operations.

Existing family medicine short-courses in L'viv are solid, but could benefit from a few enhancements. They should (a) Utilize family medicine ambulatories as clinical training sites; (b) Introduce courses on patient courtesy, patient interviewing techniques, emotional basis of illness, education of patients to assume personal responsibility for personal health; (c) Introduce courses on the role of lifestyle on health; (d) Consider elimination of duplication within the curriculum and reduction in the intensity of classroom teaching; (e) Consider prioritization of items taught in the curriculum according to the prevalence of disease within the population; (f) Evaluate the effectiveness of the teaching program; and (g) Identify, translate, publish, and distribute a practical text on family medicine.

1.0 INTRODUCTION

The health care system in Ukraine is in crisis. The collapse of the former Soviet Union, the independence of Ukraine, and the loss of Ukraine's trading partners all contributed to its severe economic decline. The Ukrainian economy can no longer support the inefficient, specialist-dominated, centrally planned health care system which has been in place for some seven decades. It is probably no accident that the health of the population has declined as the economy has deteriorated. The official statistics indicate that since 1991, the year of independence, there has been a progressive increase in mortality, a progressive fall in the birth rate, and an actual decline in the population.[1]

Indicator	1991	1992	1993	1994	1995
Mortality/1000 persons	12.9	13.4	14.2	14.7	15.4
Births/1000 persons	12.1	11.4	10.7	10.0	9.6
Population (millions)	52.1	52.2	52.1	51.7	51.3

An important contributor to the low birth rate is the extraordinarily high incidence of abortions. The official records, which probably underestimate the actual number, recorded 772,000 abortions in 1993.[2] This is about 50% more than the recorded number of live births for the country. Of the abortions, 90% are in adult women and 10% are in women aged 18 years or less. The numbers suggest that married women are using abortion as a means of birth control to avoid increasing their families in these hard times. A recent report suggests that a contributor to the low birth rate also could be male infertility.[3]

The high and deteriorating mortality probably relates to deteriorating lifestyles. Leading causes of death are cardiovascular disease, cancer, and pulmonary disease. These leading causes of death have important behavioral and environmental components which include smoking, alcohol abuse, high fat diet, inadequate exercise, air pollution, and radiation.

Underlying all of these problems is the depressed economy which prevents hospitals from providing the services, medications, and even ordinary amenities such as food and linens that were previously available. Physicians' salaries are extremely low and payment may be delayed for months. To get outpatient or hospital services, patients accustomed to free medical care are now forced to make payment, which is often

[1] Pirozhkov, Serhiy. "Current Demographic Problems of Ukraine." (1996) Medical Newspaper of Ukraine #26-28 (120) July.
[2] United Nations Development Programme, Ukraine Human Development Report, 1996.
[3] Swanson R.J. & T. Sereborvska. (1996) Second Ukrainian Congress of Pathophysiology, Bogomolets Institute of Physiology, October 9-11.

unofficial. Persons who have money can pay for services and medication, but those who are poor often must go without adequate medical care.

Ukraine has inherited substantial inefficiency from the previous Soviet system. That system was not centered around the patient, but rather centered on the specialist. District physicians existed, but their function was primarily that of writing medical excuses for patients not able to go to work. Patients who were ill were on their own to find the right specialist. As a result, and in order for physicians to protect themselves, referral to other specialists or to hospitals was overutilized. The specialists themselves found their skills were not effectively used, where an otolaryngologist might be treating the common cold, and the pathoneurologist treating common back strain. Patients were admitted to hospitals simply for laboratory tests which could have been done as outpatients, or even for a rest. Hospital stays were weeks or months in duration.

Changes in the system are inevitable and must be far reaching, including both clinical practice as well as the economic and administrative aspects of the system. From the clinical perspective, some system of primary care must be developed, where ***primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care need, developing a sustained partnership with patients, and practicing in the context of family and community.***[4] Thus, the central feature of primary care is the patient. Family medicine is one system which aims at providing primary care by developing a sustained partnership with the patient. While other primary care physicians such as pediatricians and internists, alone or in combination with other physicians, can provide effective primary care, the present report is concerned with a model of family physician ambulatories (clinics) which are successfully providing primary care in the L'viv Oblast. The success has depended upon the introduction of both clinical and economic reforms.

Family medicine in the L'viv Oblast has developed in an evolutionary process. The concept of family medicine began in 1988 when Dr. Eugenia Zaremba of the L'viv Medical University realized that family medicine provided better health care than was available at the time in the Soviet Union. She enlisted the support of the Rector, Professor Michael Pavlovsky, who visited family medicine units on the west coast of the USA, while Dr. Zaremba visited family medicine units in Britain. They obtained support for family medicine from oblast and city health administrators. Dr. Zaremba and Professor Pavlovsky instituted a four-month course at the Medical University to retrain practicing physicians for family medicine. The use of a short course to retrain physicians who already had practical experience as pediatricians and internists, and therefore understood primary care, was a successful strategy. The training allowed internists to expand their practice to children and pediatricians to expand their practice to adults. These strategies were enacted at minimal costs, and created a cadre of family physicians with minimal delay. The effort was remarkable in that a tradition of family medicine had not existed in Ukraine for more than 70 years. Perhaps most remarkable was that they

[4] The Future of Primary Care. (1996) Institute of Medicine USA.

enlisted candidates even though family medicine was not a recognized specialty and there were no salary incentives.

In 1991 they obtained space in L'viv City Polyclinic #2 to open a family medicine department, staffed by graduates, and headed by Dr. Sudova. This Department continues to function and is a clinical family medicine training site. In early 1995, Dr. Jemma Jafarova, Head of Hospital #1, assisted by Dr. Valentina Lapidus, opened a family medicine ambulatory facility with a slightly different approach. They located the ambulatory far from the hospital (see Figure 1.1.) in the Pol'ova neighborhood of 10,000 persons, where the city housing authority donated space for the facility in the ground floor of an apartment complex. Six family physician graduates and a complement of nurses staffed the ambulatory, which promptly received acceptance by the population served. Based on this success, Drs. Jafarova and Lapidus opened in July of 1996 the Warshava Ambulatory on the ground floor of an apartment building also to serve a population of 10,000 persons. The Warshava Ambulatory introduced innovations not initially present in the older Pol'ova facility, such as the use of family medicine nurses, retrained with a special two-month course. Plans are under way to open a third ambulatory in 1997.

These two Hospital #1 ambulatories possessed geographic innovations which differed markedly from those of the prior Soviet system in that: 1) the units were small, 2) they were not attached to a large polyclinic or hospital, 3) they were at a distance from the hospital, and 4) they served a smaller population (10,000 to 15,000) than did the polyclinics (125,000). The ambulatories also introduced important economic and administrative reforms, including salary incentives. Taken together these innovations over only seven years showed substantial evolutionary progress which contributed to the success of the models.

2.0 CLINICAL ASPECTS

2.1. Models of Family Medicine in the L'viv Oblast

2.1.1. Description of Ambulatories

This report focuses on the ambulatories associated with City Hospital #1, because, as described in section 2.3, below, they were the most successful of the primary care facilities. The ambulatories consisted of two to three examining rooms, a dental room, a laboratory, a work room, a day care room with two beds, and a toilet. Patients waiting to be seen sit along the hallway. Each ambulatory has six full-time family medicine physicians. Two physicians are present and they rotate every three hours so that the ambulatory is continuously operating from 9:00 AM until 6:00 PM, five days per week. A nurse is associated with each physician and staff coverage is arrived at by consensus, along with other clinic business, at weekly meetings. Home visits are done when the physician is not on duty at the clinic. Each physician has his/her own patients and the patients have the home telephone number of the physician to call for help or information when the physician is off duty. Monthly meetings with specialists at Hospital #1 are for continuing education of the family physicians.

Each of the ambulatories sees about 120 patients per working day, which is approximately 2,500 visits per month per 10,000 population, or 250 visits/1000 persons per month. From 5 to 10% of patient visits result in referral to a specialist or to the hospital. The number of clinic visits and the percentage of referrals are similar to those reported[5] for Europe and North America. However, some overutilization of the system becomes apparent when the home visits are included. Direct interrogation of more than 100 persons waiting to see the physician at these ambulatories revealed that the largest group (20%) were routine visits, often to satisfy legal requirements for work. Twelve percent were there to see the dentist. Excluding these two categories, which are not usually reported in statistics for family medicine clinics in Europe and North America, the reasons for patients reporting to the doctor (respiratory illness, heart trouble, hypertension, fever, gastrointestinal illness, diabetes) were similar to those in Western countries. A larger sample of patients surveyed[6] after leaving the ambulatory showed a similar pattern of illness. If, as seems likely, the patterns of illness for Ukraine are similar to those reported from other countries, then for the present, international data can be used for initial planning purposes in Ukraine.

2.1.2. Improved Work Attitudes by Physicians and Staff

a) Work ethic. All physicians reported that, compared to the previous system, they were working longer hours, seeing more patients, having an expanded scope of practice, and greater job satisfaction. The reasons given for the greater job satisfaction were that they

[5] White 1961
[6] Hrubiy, S. Family Medicine Patient Satisfaction Survey. (1996) Ukraine Marketing Group, L'viv.

saw a greater variety of illnesses than before, they felt more comfortable in managing these, and they enjoyed developing relationships with their patients.

b) Waiting times for patients were short. The physicians took pride in having patient waiting times which averaged less than 15 minutes, where both the shortened waiting and the physician interest in maintaining a short waiting time represent a departure from the previous Soviet system.

c) Patient education. Observations of patients visiting specialists in the polyclinic revealed that the physicians actively discouraged patients from assuming health responsibility, did not allow discussion of the illness or its management, and gave no opportunity for the patient to ask questions. By contrast, in the family medicine ambulatories discussions with patients were frequent and patients were often educated about their illnesses. A survey of more than 100 family medicine patients waiting to see the family physician documented that patients wanted education and that family physicians understood this. More than 95% of patients said that their doctor gave them the opportunity to ask questions, and more than 75% said that the doctor understood the questions and they understood the answers. None said that they failed to understand the answers. The survey also documented the desire of the patients for health information from the physician, in that patient expectations prior to visiting the physician were 55% for information, and 45% for diagnosis and treatment.

d) Incentive pay. At the two Hospital #1 ambulatories, but not at L'viv City Polyclinic #2, family physicians receive their usual salary plus incentive pay based on performance, as judged by the number of patients seen and their contribution to the overall function of the ambulatory. The result is an increase of about 60% above their base pay, which provides an incentive for physicians to enter family medicine and also encourages work ethic. Family medicine nurses also receive incentive pay. Further, the Physician Satisfaction Survey[7] showed that 60% of patients were willing to pay for extra or better services.

2.1.3. Administrative Autonomy

Lessons from around the world show that decentralizing management and financial responsibility to those managers closest to the operations improve efficiency and effectiveness. Such managers understand best the needs of both patients and staff. Although administrative autonomy does not necessarily depend on facility location, a remote operation enhances the need for, and likelihood of, autonomy.

The L'viv experience provides an example. In 1989, as part of a decentralizing process, L'viv City Polyclinic #2 granted its Family Medicine Department, located within the building, a measure of fiscal autonomy. However, in the ensuing months and years economic pressures dictated progressive withdrawal of the autonomy, such that none

[7] Hrubiy, S. Family Medicine Patient Satisfaction Survey. (1996) Ukraine Marketing Group, L'viv

currently exists. The early success of this Family Medicine Department declined, roughly in parallel, and the current patient satisfaction, as detailed below, is less than that in City Hospital #1 ambulatories, and not different from that with internists and pediatricians in the polyclinic. Absence of administrative autonomy has resulted in inability to provide incentives and also less effective utilization of space and personnel. The result is patient perception of a less friendly and less caring environment than that of the ambulatories. The administration of the Polyclinic recognizes the problem and plans to rectify it by moving the Family Medicine Department to a free-standing location.

2.1.4. A Team Approach

Although physicians are key to any health care system, the health of a population is too important to rest solely on their shoulders. For example, the smoothly functioning clinical team in L'viv Warshavska ambulatory consists of physicians, nurses, and technicians who, by working together have facilitated innovative changes.

a) Pre-planning. Before the ambulatory opened, clinic personnel by mutual consent joined to paint the facility interior and to plant flowers and shrubs at the entrance, thus considerably enhancing the attractiveness and cleanliness of the environment.

b) Family medicine nurses. Nurses took two months of training to become family medicine nurses, with the result that they actively participate with the physicians in the care of patients. Being more directly involved in patient care makes the nurse a more effective partner in the provision of health care.

c) Nurse activity. Nurses assist the physician, record the history and physical examination, take notes, and write prescriptions which the physician then signs. They take the patient to the clinic laboratory, administer injections, facilitate other treatment, and supplement health education. These are all novel activities for Ukrainian nurses.

d) Friendliness and kindness. Patients put a high priority on friendliness and kindness in the ambulatory setting. In fact, the Patient Satisfaction Survey[8] indicated that of the criteria for professional level, patients valued friendliness (80%) and kindness (64%) well above other criteria, including physician intellect (35%), or his/her knowledge of diagnosis (35%), drugs (36%), or treatment (35%). All ambulatory personnel contribute to the clinic environment. When nurses move in and out of examining rooms, this brings them into repeated contact with the patients waiting in the hall, and provides communication between patient and provider. Name tags worn by the nurses at Warshavska are a personal touch. The doctor's schedule posted at the entrance helps inform the patient as to when his/her physician is present.

[8] Hrubiy, S. Family Medicine Patient Satisfaction Survey. (1996) Ukraine Marketing Group, L'viv.

2.1.5. Continuity of Care: A Long Term Partnership Between Patient and Physician

A key element of primary care is a long-term partnership between a competent health provider and the patient. Although family medicine contains this ingredient, successful models with other primary care physicians such as pediatricians and internists also currently exist in Ukraine.[9] Such partnership could be documented in the Pol'ova and Warshavska ambulatories.

a) Evidence of continuity. Of patients interviewed directly at both ambulatories, 63% said they always saw the same physician and only 2% said they never saw the same physician. Continuity of care is developing at the ambulatories. By contrast, observations of four consecutive patients seen by polyclinic specialists revealed that in each case, the physician was seeing the patient for the first time.

b) Satisfaction generated by patient/physician partnership. The Patient Satisfaction Survey mentioned above showed that, in contrast to specialty visits at the polyclinic, patients at the ambulatories wanted to retain the same physician and further would recommend the facility to others. The family physician ambulatories thus showed greater patient satisfaction than did primary care providers in Polyclinic #2. Such satisfaction is necessary if patients are to be asked to pay user fees to the ambulatories in the future.

c) Need for ancillary services. The development of partnership between physician and patient has reduced the need for ancillary services. For example, since the establishment of the ambulatories, ambulance calls in the regions served have fallen, such that on weekends they have virtually ceased.[10] Regarding other ancillary services, patients served by the L'viv ambulatories see no need for clinics to remain open 24 hours each day. Confidence in the physician and the availability of telephone contact during off hours relieve patient anxiety. The patients know where to turn for help, and that health advice will be in their best interest.

d) Need for referral. The development of a partnership between patient and physician is an important factor in reducing the need for referral. For example, as shown in section 2.2.3. below, the rate of patient referral to another specialist was less than half that among internists and pediatricians, and referral to the hospital was less than half that of the internist. When the patient knows the physician and has confidence in the advice received, the need for referral falls.

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[9] Stone, M. *Successful Integration of Medical Insurance, Private Practice, and Family Medicine in Dneprodzerzhinsk*. September 1996, Zdrav Reform; and Witttenberg, T. *Ukraine's Health Care System in Transition: The Role of Private Health Care Facilities in Ukraine*, 1996, in preparation for ZdravReform.

[10] The savings from reduced ambulance calls are very substantial. Deputy Minister of Health Dr. Morozov in an October 17, 1996 speech at the Ministry of Health indicated that for Kiev, unnecessary calls alone generated significant costs each year.

e) Continuity of care promotes illness prevention, because patient-physician trust allows for better patient education on healthy lifestyles. Immunization rates are higher and mortality rates for men of working age are decreasing in areas served by the ambulatories.

The above findings are in line with experience from the United States and Britain, where continuity of care is known to allow the physician to evaluate the patient's vague complaints, separate major from minor illness, establish which complaints arise from lifestyles or emotional problems, determine whether risky procedures are indicated, and follow the effects of treatment. "The *sin qua non* of family practice is the knowledge and skill which allow the family physician to confront relatively large numbers of unselected patients with unselected conditions and to carry on therapeutic relationships with patients over time"[11].

2.2. Comparisons of Models of Primary Care (Patient Satisfaction Survey)

2.2.1. Need for Evaluation

In L'viv, there are at least three models of primary care - the traditional polyclinic with internists and pediatricians, the Family Medicine Department located within the polyclinic building, and the free-standing small ambulatories established by City Hospital #1, but at some distance from it. Each of these facilities has distinct features. At issue is which of the features and which facility provides the most effective and the least expensive health care. The questions are urgent for Ukraine because the population's health is poor and national resources are extremely limited. Therefore an effort was made to evaluate effectiveness.

2.2.2. Strategy for Evaluation

Certain assumptions are necessary to evaluate an issue as complicated as health care. First the evaluation had to provide clues as to both benefit and cost. Assumed was that the patient could provide evidence of benefit. A health care system exists to serve the patient, and if the patient is not satisfied with the service, the system has failed to some extent. Thus one area of focus was measure of patient satisfaction. Cost could not be measured directly, but rather was indirectly assessed by the extent to which the patient utilized the health system. If measures of utilization of personnel and services were less for one facility, it was considered less costly. If one facility showed evidence of greater patient satisfaction, while at the same time showed less system utilization, it would be deemed to have a more favorable benefit/cost ratio. Patients were surveyed face to face after seeing a pediatrician at the polyclinic, an internist at the polyclinic, a family medicine physician at the polyclinic, and a family physician at the Pol'ova family medicine ambulatory. More than 200 patients were surveyed at each site.[12]

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[11] Stephens G.G. (1975) The Intellectual Basis of Family Practice. Journal of Family Practice 2: 423-428.

[12] Hrubiy, S. Family Medicine Patient Satisfaction Survey. (1996) Ukraine Marketing Group, L'viv.

2.2.3. Results and Conclusions

Comparing the patient responses at the Pol'ova ambulatory with those from Polyclinic #2 internists, results are shown below for selected questions.

Interview Question	Indicated Response	Family Medicine Ambulatory	Internist	Pediatrician
What was facility's hygienic condition?	good	65%	56%	58%
Would you return to this facility?	Yes	82%	77%	68%
Would you recommend this facility?	Yes	80%	47%	38%
What is physician's professional level?	High	79%	58%	53%
Was the physician friendly?	Yes	84%	69%	69%
Was the physician kind?	Yes	62%	49%	40%
Were you educated about your condition?	Yes	84%	67%	67%
Are you willing to change doctors?	No	86%	76%	69%
How many visits to reach a diagnosis?	One	85%	62%	60%
Should the facility be open 24 hrs/day?	Yes	40%	62%	77%
Were you hospitalized in the last year?	Yes	9%	19%	5%
Were you referred to another specialist?	Yes	16%	41%	37%

The results showed more favorable responses for family physicians at the ambulatories than for internists and pediatricians at the polyclinic, even though the specialists chosen for comparison were those most likely to provide primary care. The favorable responses included the facility, the friendliness and competence of the physician, and less hospitalization and referral. In addition the number of ambulance calls from the district ambulatory decreased by 60% after the ambulatory began operation. The results after comparing the ambulatory with the Family Medicine Department located within the polyclinic are in the annex, and not presented here in detail. However, in general those results were not different from the results of the internists and pediatricians in the polyclinic.

The question is why the ambulatory at City Hospital #1 was more successful in terms of patient satisfaction with less system utilization than the other three groups, and in particular than the Family Medicine Department of the polyclinic. Those who conducted the survey identified several potential reasons why the family medicine ambulatory was more successful than the Family Medicine Department: a) The ambulatory is closer to the population being served than is the polyclinic. b) The ambulatory facility is a free-standing unit, while the Department is located in a large clinic surrounded by specialists. There are several implications of this geography, including that: the patient can more easily identify and relate to a small free-standing unit, there is more administrative autonomy in a separate unit, there is more control of space utilization in the small free-standing unit, and the atmosphere is friendlier. There was physician incentive pay at the ambulatories, but not at the Family Medicine Department of L'viv City Polyclinic #2.

2.3. Observations for Further Strengthening of Family Medicine Ambulatories

2.3.1. Equipment

a.) Both urban and rural ambulatories are sparsely equipped. Physician tools included stethoscope, blood pressure cuff, otological mirror with central hole, and usually an eye chart and scales for height and weight of patients, but little else. The eardrum is seldom examined because the mirror is clumsy and the light source is uncertain. The eardrums of pediatric patients are not routinely examined even if there is an upper respiratory infection. Yet otitis media is extremely common, and the drum should be carefully examined to determine the need for antibiotics and to prevent complications. A convenient battery- powered, hand-held otoscope would expand the scope of family practice, not only for the ear, but also for the nose, throat, and even larynx.

b.) Opthalmoscopes are essentially unknown in the urban and rural ambulatories. Yet eye problems accounted for 2 to 3% of all visits to the ambulatories.[13] Further, eye

[13] Hrubiy 1996.

examination is of great importance in many common diseases including hypertension and diabetes. Hand-held opthalmoscopes would substantially increase the scope of family medical practice.

c.) Simple turbines to measure peak air flow are extremely useful in establishing the diagnosis and monitoring treatment in asthma and chronic bronchitis and emphysema. Given the great use of tobacco, the presence of air pollution, and the cold damp climate in L'viv, respiratory illness is near the top of reasons for patient visits to the doctor. Simple measurement of peak air flow will expand the scope of family practice relative to respiratory disease.

d.) Trial introduction by ZRP consultants of otoscopes and opthalmoscopes was enthusiastically received by family physicians. Plans are being made to introduce substantial numbers of these instruments, along with peak flow meters and laryngeal mirrors. Evaluation of the usefulness of these instruments is also planned.

e.) Laboratory diagnosis in ambulatories is limited to white blood counts and differential, hemoglobin, and microscopic urinalysis, all by labor intensive means. Blood for chemistries and other tests is drawn by technicians on those days and those hours when technicians are available, and couriers can transport samples to the central facility for analysis. Vaginal cultures for chlamydia and gonococcus are generally not done, yet the incidence of sexually transmitted diseases is increasing in the country. 'Pap' smears for cervical cytology are performed.

Reported Cases of Sexually Transmitted Disease[14]

	1991	1992	1993	1994	1995	1996
Syphilis (15-17 year olds)	250	400	1000	2200	3700	
HIV	20	25	30	30	40	180 (8 months)

f.) An upgrading of ambulatory laboratory capability would be by battery-powered glucosometer and blood strips which give an immediate estimate of blood glucose from a finger stick. Urinalysis strips give immediate results for sugar, acetone, protein, presence of infection, bilirubin, pH, and specific gravity. Hematest kits for stool occult blood will help screen for colon cancer. Strategies to culture for sexually transmitted diseases should be considered. Trial introduction of some or all of these technologies is planned by Zdrav*Reform* consultants.

[14] Human Development Report for Ukraine (1996) United Nations Development Programme. Chapter 9.

2.3.2. Medical Records

a.) Current patient records are in soft-cover booklets of about 5x7 inches. Adults generally keep their own records, but children's records often remain in the clinic. If the patient forgets the booklet for a visit or if the booklet is lost, the continuity of care is compromised. At best the records contain sparse information.

b.) Strategies need to be developed by the family medicine ambulatories to revise nearly entirely the patient record system in order for records to be more complete, uniform, informative, and more easily used. A standardized system would facilitate transfer of information, referral information, cost accounting, and clinical information gathering. The records will also facilitate patient tracking for return visits for immunization, 'Pap' smear, breast exam, perinatal exam etc.

c.) Because patients return to the same ambulatory and usually to the same physician, records should be filed in the ambulatory itself. Records would then be available to the physicians and nurses.

d.) The nurse should record basic information such as pulse, blood pressure, body temperature, weight, and reason for the patient's visit as the patient arrives. Thus, when the physician sees the patient considerable health information will already be available.

e.) The record should contain a problem list of acute and chronic diagnoses and a medications list to give the nurses and physicians an immediate picture of the patient's previous problems.

f.) For pediatric patients the record should contain a growth chart showing percentiles for height and weight at each age. In the first 60 clinic visits observed during August 1996 in L'viv, the question of growth retardation arose in four children. Thus, there appears to be a need for more precise monitoring of growth, than can be obtained by simple rules.

g.) Sample records from the University of Colorado Family Medicine clinics were demonstrated and appeared to be well received. Strategies need to be developed to review and modify these and other examples of clinical records for use in Ukrainian ambulatories.

2.3.3. Increased Utilization of Medical Support Personnel (nurses, technicians, counselors and other personnel)

a) Nurses: The introduction of trained family medicine nurses in L'viv ambulatories brought great improvement in personnel utilization, as noted above. However, particularly in rural ambulatories, nurses seemed to be largely underutilized. In both rural and urban ambulatories the roles of the nurse should be expanded to include patient

record keeping as above, the administering of intramuscular injections, blood drawing for laboratory testing, and the performance of most laboratory tests.

b) Home visits. For persons needing medical attention and who cannot come to the ambulatory, home visits are both necessary and important. In urban and particularly in rural areas they require a large segment of physician time. Physicians see four to six patients per hour in the ambulatory. Urban home visits, including travel time, require 45 to 60 minutes each. Thus approximately five patients are seen in an urban ambulatory in the time of one home visit. In one rural ambulatory visited, the physician was up the entire previous night making five home visits, where the travel time alone required four hours. The issues are whether all home visits are necessary, and whether a physician is always required to make the visits. For many patients with chronic illness and for postnatal mothers and infants, visiting nurses are often more effective than physicians. A large experience has developed in Britain with the system of visiting nurses. Strategies which have been developed need to be modified for Ukraine. Training of feldshers, increased use of telephones, and increased use of nurses are possible strategies that could be considered.

c) Receptionist/accountant. As the popularity of family medicine has increased rapidly in L'viv, the City Hospital #1 ambulatories are already outgrowing the space available. Further, receiving and discharging patients from the ambulatory, and the keeping of financial records are becoming more important. If as proposed, patient records are to be kept in the ambulatory, these files must be maintained and in order. Patients appear in larger numbers in the morning and evening and more sparsely in the middle of the day. Currently no appointment system exists and patients are seen as they walk in. An appointment system, where possible, could decompress the times of heavy utilization and allow more effective use of space and personnel. All such functions could be assumed by a person who acts as a receptionist and who can maintain financial records.

d) There is substantial unmet need for psychological counseling in Ukraine. A confidential survey conducted in more than 100 family medicine patients waiting to see the physician indicated that more than half wanted counseling help with family relationships. More impressive was the fact that, if counseling were available, nearly all would like help in one or more personal areas. The current economic depression precludes hiring of counselors, even if they were available, and there is no tradition of personal counseling by psychologists and social workers in Ukraine. However, the need is great and the economy will not always be in crisis. Therefore strategies need to be planned to deal with this problem.

2.3.4. Strengthening Patient Education

A perception has been that several decades of Soviet medicine have trained patients to look to physicians for health rather than to take personal responsibility for their own well-being. One consequence might be that patients would have little or no

interest in health education. However, the dismal and deteriorating mortality statistics for Ukraine almost certainly relate to unhealthy lifestyles involving tobacco, alcohol, poor diet, and inadequate exercise. Therefore it was important to obtain clues as to patient receptivity to health education. A survey of patients waiting to see the family physician showed that, contrary to expectation, the patients were receptive to health education. The results showed that large percentages of those asked would participate in health education relating to lifestyles.

If education were available to help you or your family, would you participate?

	Diet	Exercise	Smoking	Alcohol
% Yes	73	55	73	31
% No	12	9	17	56
% Don't know	15	36	10	13

a) Patient education sheets which are simple, brief, clear, and informative are available from many sources in the USA. For example, the University of Colorado Family Medicine Department has more than 80 such one-page sheets for handout in the clinics. Such sheets could be translated, adapted for Ukraine, printed, and put in the patient waiting areas in rural and urban ambulatories in the L'viv Oblast. Sheets are available, for example, on diseases (hypertension and diabetes), prophylaxis (breast examination), lifestyle (smoking, diet), care of infants (breast feeding, colic).

b) Family physicians and other personnel in the ambulatory have responsibility for patient education. Refresher training on a regular basis in the facility would continue to emphasize this contribution to health. Physicians giving patients choices about treatment options requires the patient to assume responsibility for health and also provides patient education.

2.3.5. Strengthening Clinical Practice by Improving Patient Dignity

Due to space limitations in the ambulatories, patients in both rural and urban settings are examined in the physician's office, containing the desk and telephone. For economic reasons and because of building design the rooms are inadequately heated. Other patients and visitors may enter the examination room unannounced. Patient gowns are generally not available. These realities result in examinations which are limited to the areas of the patient's complaint. Even so, young women having a chest or breast examination must endure violations of modesty. Rarely is a patient undressed for a complete examination.

a) The examination would be more complete and patient dignity improved if curtained cubicles were installed and patient gowns employed. If the room is cold, blankets would be needed. Cubicles would provide some privacy, conserve space, and could be installed at little cost. Nurses could assist female patients to prepare for the doctor's examination.

Plans are already in place for the purchase of patient gowns in some family medicine ambulatories.

b) When visitors were present physicians tended to speak to the visitors rather than to the patient. If physicians included the patient in all conversations and requested patient permission for any intrusion, courtesy toward the patient would improve, which would further strengthen the patient-physician relationship. The stronger that relationship, the more likely is the patient to take his/her own health seriously and be interested in health education.

2.3.6. Introduce Family Planning as a Component of Family Medicine

a) In Ukraine abortions exceed the number of live births by a factor of 1.5 to 2.[15] Such an appalling statistic indicates that abortion is being used as the primary means of birth control. Considering the complications, the loss of future fertility in women, the human suffering, and the monetary cost, the situation is untenable. Family planning centers are being considered for Ukraine and a USAID program in Reproductive Health is in place. While family planning clinics have been successful in the United States, access is sometimes difficult in rural areas. In any event, family physicians can nicely complement family planning centers. Abortion is such a major event in the life of a woman and her family that it must not be ignored by family physicians. Further, the family physician who is known and trusted by the patient is in a strong position to offer advice and help.

There are many forms of birth control. The family physician can discuss with concerned women the need for birth control, options available, and costs and benefits of each. At the discretion of the physician and patient, women at risk for sexually transmitted diseases should be checked, particularly for chlamydia and gonorrhea. Because of the rising rate of such diseases, the use of condoms for birth control is being considered by the Ministry of Health, and this option should be offered. However, of the various forms of birth control, Depo-Provera stands out, first and foremost because it is effective.

Method	Percent of Women who Experience Accidental Pregnancy in the First Year of Continuous Use.
Depo-Provera	1%
Female Sterilization	1%
Male Sterilization	1%
Pill	4%
IUD	4%
Condom	12%

[15] Pirozhkov, S. Current Demographic Problems of Ukraine. (1996) Medical Newspaper of Ukraine, July 26-28.

Diaphragm	18%
Periodic Abstinence	20%
No Method	85%

One intramuscular injection provides 99% pregnancy protection for three months. Because the preparation contains progesterone and no estrogen, it is not thrombogenic and has little carcinogenic potential. Side effects are minimal and usually well tolerated. Cost is not greater than other forms of birth control. Patient compliance is high. Worldwide experience is great. A key to the use of any method of birth control, including Depo-Provera, is proper use, and both patients and physicians must be educated. A supplier of the drug, Upjohn Co. was introduced to L'viv family physicians to demonstrate and educate them on the use of the drug. This step was considered necessary because there is little experience with the drug in L'viv family medicine ambulatories, and improper use elsewhere has led to some misconceptions.

b) Another aspect of family planning is male infertility and its possible relationship to the high incidence of birth defects in Ukraine. A recent report[16] indicated that otherwise healthy young military and police recruits from Kiev and L'viv had sperm counts at or below normal limits with substantial hypo-motility of the sperm and a high incidence of abnormal forms. Some of the men had testicular biopsy which indicated abnormal spermatogenesis. The possibility was raised that the findings reflected multiple factors including smoking, drug use, alcohol, diet, and radiation. Family planning counseling should not only include women but also advice for healthy lifestyles in men in order to maximize fertility in couples wanting children and to minimize the likelihood of birth defects.

2.3.7. Removal of Unnecessary Practices

a) Unnecessary or inappropriate routine examinations. Between 14 and 40% of visits to family medicine ambulatories are for routine examinations, the incidence of which is several times higher than in Western countries. Further the examinations may be perfunctory or not performed at all. Examples of examinations which may be inappropriate for the family physician are those for persons taking sick leave from work, the military and police, teachers, and persons transitioning to other forms of work. Strategies should be developed to abolish the routine practice of examinations of workers taking sick leave. Possibly, the military and police could conduct their own medical examinations or contract with family physicians to conduct examinations which meet certain standards. Criteria should be established to reduce the need for so many routine examinations and to establish a mode of payment for those which are necessary.

b) Elimination of unnecessary referrals required by statute. Some legal statutes appear to be designed to protect the physician rather than to serve the patient. For example,

[16] Swanson R.J. and T. Serebrovska. Male Reproductive Function (1996) Second Ukrainian Congress of Pathophysiologists. Bogomolets Institute of Physiology, 9-11 October.

newborns with a history of neonatal jaundice must be referred to the neuropathologist by the age of three months, regardless of the health of the child. The intent is probably to ascertain whether brain damage has occurred as a result of an elevated neonatal bilirubin. Some bilirubin elevation occurs routinely in neonates, and only when the level is very high (>25 mg%) is the child at risk for brain damage. However, bilirubin is often not measured. The current practice results in unnecessary referral of many healthy children. There is also the routine referral of infants to the orthopedist for minor degrees of limitation of femoral rotation. This risks a pelvic x-ray with attendant radiation to the genitalia at an early age. It would seem appropriate to leave such referral decisions to the family physician or pediatrician.

c) Removal of the excessively punitive environment in which physicians function. In the former Soviet Union, where the physician was deemed responsible for health care, failure of that care has led to punishment of the physician by fine or reprimand. Although physicians clearly must meet certain standards of professionalism, it is inappropriate for them to assume that portion of responsibility which rightfully belongs to the patient. For example, physicians who do not meet their quota of immunizations are liable to punishment. To avoid fines physicians go to the patients' homes to conduct immunizations because the patients failed to come to the immunization centers. If the patients refuse the immunization, or are not at home, or are drunk, then this becomes the physician's problem and not the patient's. The recent polio immunization campaign required some 60% of the physician's time for home visits to avoid governmental censure, which put other patients needing attention at risk. Strategies should be considered which accomplish the immunization but do not punish responsible physicians nor put the health of others at risk.

d) Promotion of family physicians by advisories from the Ministry of Health which encourage expanded practice.

- Round table discussions and meetings of the Family Medicine Advisory Committee at the MOH will serve to inform the ministry of activities in L'viv. The ministry is often unaware of the details of experiments taking place in medical practice. Further information sent to a given deputy minister or the Minister himself often does not reach its destination.
- A video on family medicine to inform all levels of health administration about family medicine, its successes and problems, is being developed by ZRP in L'viv. The video should also be useful for public relations with the public and other physicians.

2.4. Successful Educational Model at L'viv Medical University

2.4.1. A 'Short Course'

This is a 'short course' to retrain practicing primary care physicians (pediatricians, internists, district doctors) for family medicine. Dr. Eugenia Zaremba conducts the short course which includes 624 hours of instruction based on a six-day week for four months.

The course structure has 45% of time for didactic lecture, 37% for case presentations and seminars, 10% for clinic participation with specialists, and 8% for examination on the material presented. Specialists from 20 disciplines from the University faculty teach the course. The time allotted to each varies from 30% each for internal medicine and pediatrics, to 1% each for proctology, dentistry, and clinical laboratory. Thus an attempt has been made to allocate time for specialties according to the importance of illness in the population. By intent, the course is intense and comprehensive.

To date the course has graduated 113 persons, several of whom were interviewed. For solo doctors from remote districts the training made them more confident, but did not change what they did because of lack of equipment and uncertainty as to how they might legally expand their practice. For sub-specialists and urban physicians, the course substantially expanded the scope of their practice by increasing their ability to diagnose and manage patients of various ages and complaints.

A list of nearly 100 practical skills to be mastered by the graduates was drawn up by Dr. Zaremba. Ten graduates picked at random from urban practicing graduates scored each skill as to its usefulness. 70% of the skills taught were found to be used frequently and were judged to be very important. 30% were used less frequently or were only for information to be used for referral.

The course was judged to be both well received and useful. The result of the course has been that improved utilization of medical talent already available in the Oblast has allowed family medicine to develop expeditiously and with little cost. The course serves as a model for other oblasts, particularly in the urban setting.

2.4.2. A 'Long Course Residency' in Family Medicine

The 'long course' is designed to be 11 months per year for three years for a total of 33 months. The division between classroom and clinic/hospital shows a progressive decrease in class time with a complementary increase in practical work.

	Year 1	Year 2	Year 3
Months in University Department	5	3	2
Months in Hospital/Clinic	6	8	9

The 20 specialties taught in the University Department are those also taught in the short course, with a similar distribution of emphasis, and a similar division between lecture, seminar, workshop, and testing. The course is highly structured, and well organized. There have been six graduates to date. This long course serves as a model, and the graduates should be considered to ultimately serve as trainers and educators for future

trainees. There is also offered for highly trained family physicians a two- month course as a pre-accreditation refresher.

2.4.3. Association of Family Physicians

Dr. Zaremba has established an Association for the program graduates and trainees. There are monthly meetings for dissemination of information, discussion of common issues, and continuing medical education. The Association serves as a model for other oblasts, in order that a country-wide organization can occur. Also, Dr. Zaremba has established a journal, Practical Medicine, for which she is the Editor-in-Chief. The journal appears quarterly, and the first two issues have been published on time.

2.5. Further Strengthening of Family Medical Education

Curricula traditionally require continual modification, and this is particularly true in Ukraine, where economic pressures are reducing educational resources. Also, the introduction of new tools, activities, and diagnostic possibilities will change the curriculum. Thus the following observations will apply for a limited time only.

2.5.1. Educational Sessions on "Introduction to the Patient"

The observation in the clinics was that patients should be awarded more dignity, by ensuring that the patient-doctor relationship is more confidential and private. Practice of this principle was much better in the ambulatories than in the specialists' offices, but there is always room for improvement. To facilitate this goal, sessions on interviewing techniques could be an initial part of both the short and the long courses. The interviewing sessions would emphasize the need to focus on, and be sensitive to, patient concerns, and to minimize extraneous interruptions. Accessories such as curtained cubicles and patient gowns would be helpful, but better education is key. The importance of a session(s) on patient dignity, courtesy, interviewing techniques is that as the doctor-patient relationship improves, patient self esteem increases, health awareness improves, and receptivity to health education is enhanced.

In 1996 life expectancy for men in Ukraine was age 55, which implies that lifestyle issues such as use of tobacco and alcohol, poor diet and lack of proper exercise are adversely impacting health. Monitoring of clinic visits indicated that education of the patient on these topics was rare. The relation of these to individual and population health should be stressed in the curriculum, along with techniques by which the physician can use clinic visits to educate the patients.

2.5.2. More Emphasis on Trauma, Obstetrics, Family Planning, Psychology

Interrogation of graduated family physicians indicated by actual experience that further training would have been useful in certain disciplines. Rural physicians specified that more training would have helped them handle trauma cases, particularly where fractures were possibly involved. Both rural and urban physicians said they wanted more training in obstetrics. Urban physicians stressed the need for more psychology in the

training period. If, as has been suggested, family planning is to be included in the capabilities of the family physician, then it should be added to the curriculum. The teaching of family planning to family physicians is a logical extension of their activity and it combines obstetrics and psychology.

2.5.3. Clinical Training at Successful Family Medicine Ambulatories

There are two different but not mutually exclusive philosophies for educating family physicians. The first is that they should be trained in all specialties, and the second is that they should be trained to handle the common heath problems in the population. The training at the L'viv Medical University emphasizes the first in that teaching is done by a cadre of specialists. However, the training includes the second philosophy in that the various specialties are weighted according to their clinical importance. Complicating these issues is the continuing reduction in resources available for all training.

One resolution to these problems is to emphasize more clinical training at the successful ambulatories. Thus, if time for faculty input to training is reduced, training at the ambulatories can make up the difference. Further, the trainee will gain practical experience in the illnesses to be faced after training has been completed. There is such experience in the three-year, but not in the four-month, course.

At issue is how to maximize the effectiveness of such clinical training. One key is that each patient visit is to be a teaching experience. Successful features of the teaching experience are that the trainee be given responsibility for the patient and not be only an observer, that the preceptor reviews the patient with the trainee, and that the trainee is required to document how appropriate was patient handling as judged from the literature. Discussions with other preceptors and other trainees broaden the educational experience. This model of teaching, which is widespread in other countries, can be more broadly applied in family medicine. The advantages of this training model are that it is effective, it reinforces classroom teaching, it maintains clinical skills of the preceptors, and the costs are minimal. The disadvantages are that the preceptor needs to invest time in the trainee, and that clinic space will need to be provided for the trainee.

2.5.4. The Journal "Practical Medicine"

The publication of this journal is a signal step forward. The goal should be that all members of the Association receive the issues as they are published. Dues will likely be necessary to defray the costs of publication and mailing. Members are to be encouraged to submit articles to the journal and to participate in its operation.

2.5.5. A Text of Family Medicine

Dr. Zaremba has identified a text published by the British Royal Society of Family Medicine. The initial translation into Ukrainian has been completed and a review is under way. This plan is to be encouraged and resources sought for its implementation.

2.5.6. Strengthen the Association of Family Physicians

The Association is young and its existence and continuity depend on Dr. Zaremba. Its future strength will require more organizational structure with officers, by-laws, membership lists, and dues. Decisions will have to be made as to inclusion of family medicine nurses, economists and other professionals. The Association will need to develop and maintain among its members effective communication, as through a newsletter. A planned introduction of computers will allow convenient e-mail communication. As the membership grows, a public policy arm should be considered to encourage health reform and Association interests.

2.5.7. Strengthen Post-graduate Medical Education

Formal and informal conferences involving family physicians and specialists should be strengthened. For rural ambulatories this may take the form of clinics for a visiting specialist to see problem patients. For urban settings, the specialist is invited in for 30 minutes or an hour for updating a field, or for review of difficult problems. With the planned introduction of computers and modems, there will be the capacity for literature searches and e-mail consultation inside and outside Ukraine. Selected sites could be targeted for use of educational compact disks, which are now available through Scientific American Medicine.

2.6. Recommendations for Clinical Aspects

2.6.1. Replication of the Successful Urban Clinic Model

Replication of the successful urban clinic model which has been established in the city of L'viv in the two City Hospital #1 ambulatories (Pol'ova and Warshavka) should be encouraged. There are several key features.

a) A small group (6-8) of physicians, retrained as family physicians, can work together. This number provides sufficient 'critical mass' to provide for clinic coverage and supportive interaction, but remains small enough to retain flexibility. There is no requirement for family physicians to be teamed with specialists for effective function.

b) The group works in an ambulatory which is close to the population being served. Most Ukrainians do not have cars, and being able to walk to a convenient clinic eliminates the

need for patients to take public transport, and proximity facilitates home visits by the doctor.

c) The ambulatory is separate from a large polyclinic. Patients can identify more with a small, friendly facility than with the traditional 9-story polyclinic. Further, separation promotes more administrative autonomy.

d) Administrative autonomy allows the group to solve its problems and expand its practice in the most efficient way. Decentralization of authority makes for efficiency and also empowers the ambulatory staff to be responsible for their day-to-day operation.

e) A team approach by family physicians and family nurses provides a friendlier, more effective atmosphere which is appreciated by the patients. Personal attention and friendliness are the professional criteria most highly valued by the patients. Having a high level of patient satisfaction both contributes to, and results from, effectiveness of health care. These attributes are facilitated when staff members actively cooperate with each other.

f) Economic incentives energize physicians and staff. A positive work ethic, where fewer people accomplish greater results, must be compensated if it is to persist.

2.6.2. Further Strengthening Urban and Rural Family Medicine Clinics

a) Upgrade the diagnostic skills of the physicians and the scope of laboratory testing. The University of Colorado and its NADIYA Group will endeavor to obtain the following items for introduction into the Oblast at selected sites to test their usefulness.

- Hand-held otoscopes for the examination of the ear are unknown in the oblast, and are needed to replace the mirrors which are awkward, infrequently used, and have no certain light source. Otoscopes will improve diagnosis and management of otitis media, a common illness in children. The instruments will also help examine the nose, throat, and larynx.
- Hand-held opthalmoscopes for examination of the inner eye and retina are unknown in the oblast, but are needed, particularly because diabetes and hypertension, which affect the retina, are common illnesses in L'viv Oblast.
- Battery-powered glucosometers with test strips are small and light, but provide blood glucose estimates without delay from a finger prick. Neither ambulatories nor family physicians currently have access to blood glucose levels, which are important for controlling and diagnosing diabetes. Such a device will prevent referral of many patients.
- Urine dipsticks to yield analyses of sugar, acetone, protein, infection, bilirubin, pH, and specific gravity without delay are not available to physicians or their ambulatories. Consequently urinalysis is rarely done. This simple paper strip will substantially improve the capacity to diagnose and treat illnesses which alter the urine components.

• Tubes for vaginal culture of sexually transmitted diseases are not available and need to be provided. Even though these diseases are increasing in Ukraine, the tests are rarely done.
• Simple peak flow meters are needed for the management of asthma and emphysema. Of the various body systems, respiratory system illness accounts for the largest number of clinic visits. Asthma and emphysema are common, but devices to establish the ability of the patient to move air or to monitor the progress with treatment are not available.

b) Improve medical records and retain them in the family medicine facility.
• Medical records should be retained on file in the family medicine ambulatories, where they are available to the doctors and nurses, rather than to be kept by the patients. The records will not be forgotten or lost, and they will be available for patient visits.
• Needed are growth and development charts for children, to replace the 'rules of thumb' which the physicians currently use. Because of the frequent childhood illnesses and poor diet, there are frequent questions about growth of children, and precise charting of growth should be done.
• Eye charts should be on the walls of the clinics or a simple hand-held eye chart should be in the clinic, so that the nurse or physician can test for visual acuity. Currently this is rarely done.
• The chart organization should be revised to include problem lists and drug lists which will provide the staff with an immediate picture of the conditions the patient has and the medications which he/she is taking. Currently this information is not conveniently located in the record.
• Introduce a system for periodic return of patients for immunization, breast examination, 'Pap' smear, prostate examination, etc.

c) Improve utilization of physicians and other ambulatory personnel (nurses, technicians, receptionists, counselors)
• Augment use of family medicine-trained nurses to assist physicians in record keeping, patient tracking, immunizations, blood drawing, and home visits. Currently physicians are distracted by a multitude of duties which could be done by ancillary personnel and allow him/her to focus on patient care. For example, physicians can see from 5 to 15 clinic patients in the time required for one home visit. If some visits could be eliminated or handled by nurses, physician utilization would greatly improve.
• Personnel will soon need to be developed to receive and discharge ambulatory patients and to maintain financial data. As the volume of patients and the complexities increase in the ambulatories, such personnel will be needed.
• Plan for persons who can assess and help with patients' emotional needs. Psychologists and medical social workers simply do not exist in Ukraine, yet the conducted survey indicated great need. Strategies need to be developed for such persons to be introduced when the economic conditions permit.

d) Education of patients about their illnesses, and about healthy lifestyles, can be done with little or no cost.

• Provide simple, brief, clear handouts to patients in the ambulatories instructing them about common illnesses or common problems. Such handouts are available for a wide variety of subjects and are extremely effective. Samples have been translated and need to be made appropriate for Ukraine, for printing and distribution.
• Improve educational skills of physicians and other ambulatory personnel. Each clinic visit should be used as an opportunity to educate the patient or the family about health. Greater awareness of this is a matter of continual education of ambulatory staff.

e) Clinical practice and patient compliance will be greatly strengthened by improving patient dignity.
• The ambulatories need to be able to examine the patients in greater privacy than is currently available in the physician's office. A simple device is to have curtained cubicles which could be installed at little cost and would even allow more efficient use of space.
• The use of patient gowns (accompanied by blankets in cold rooms) would help maintain modesty, particularly for female patients, while at the same time facilitating a more complete physical examination.
• Patients should receive the full attention of the physician during consultation, and confidentiality needs greater attention. The full attention of the physician was the single most important criterion required by patients of their doctor in the patient satisfaction survey. This improved courtesy to patients costs nothing, but will cement the physician-patient relationship.

f) Make family planning a component of family medicine. (Currently family planning is considered outside of the scope of the family physician.)
• The family physician should have family planning information in the ambulatories, and should advise patients on issues of fertility and unwanted pregnancy. They should describe the options.
• Family physicians need to have the tools to screen for sexually transmitted diseases, which are increasing in Ukraine.
• Family physicians should help prevent unwanted pregnancies, using the most appropriate methods given the situation of the family.

g) Recommend advisories from the Ministry of Health to encourage expanded family medicine practices.

2.6.3. Further Strengthening of Family Medical Education

a) Introduce teaching sessions on patient-doctor relationships, interviewing, and patient education. The surveys, comments from program graduates, and numerous direct observations indicate that more emphasis should be given in the training program to the "whole patient" approach. The Soviet emphasis on specialties and the mechanics of medicine ignored the art of medicine. Family physicians have already made a start at restitution, but the curriculum needs to be revised to include this aspect.

b) Revise the curriculum to de-emphasize those areas which are less utilized and to emphasize other areas such as trauma, obstetrics, family planning, and psychology. A physician skills survey indicated some areas of the curriculum which should be de-emphasized. Rural physicians wanted more training in trauma and fractures, while urban physicians wanted more training in psychology. Both wanted more emphasis on obstetrics. Family planning should be introduced into the curriculum.

c) Increase utilization of successful family medicine ambulatories for clinical training. The decreasing resources for training family physicians dictate new strategies, which should include the broader use of the ambulatories as preceptorships for the trainees. Preceptorships are the heart of training in many Western countries, where they have been utilized with great success, and an expanded role for these should be sought in Ukraine.

d) Enhance the use of the newly published journal "Practical Medicine". The Editor-in-Chief is Dr. Zaremba, and the journal is an ideal mechanism to disseminate news and ideas about family medical practices. Strategies need to be developed to see that each practicing family physician has a subscription to the journal, and that contributions are encouraged.

e) Identify, translate, publish a text on practical family medicine. A text from the Royal Society in London is currently under translation. Strategies need to be developed to see that the text comes to publication in Ukraine.

f) Strengthen the Association of Family Physicians. The Association is newly formed and thus needs strengthening to provide for continuity. Suggestions are to develop by-laws, a broad base of membership, collection of dues from members, institution of newsletters, utilization of electronic mail when the planned computers are introduced, and ultimately to develop a public policy arm to advance family medicine in the political arena.

h) Strengthen post-graduate education. Once family physicians have been trained, it is important that their skills stay current. Strategies to maintain physician clinical skills include enhanced communication with specialists when patients are referred and by conferences, and with the advent of the computers, by literature searches, by e-mail contact inside and outside Ukraine, and by the use of educational compact disks.

3.0 ECONOMIC AND BUSINESS MANAGEMENT OF PRIMARY HEALTH CARE GROUP PRACTICES

The innovations in family medicine described in the two previous chapters were supported with limited experiments in salary incentives and increasingly limited government budget funding. It would be fair to say that the successes achieved so far can be attributed primarily to the insight and commitment of health professionals seeking to improve access to quality and cost-effective health care. Expansion of these successes nationwide will require significant reforms in macro- and micro-economic conditions. This is the focus of this chapter.

3.1 Cost-effectiveness of Family Medicine Doctors

Experience from around the world has demonstrated that primary health care is cost effective for two major reasons. First, primary health care treatment costs less than specialist care. Second, primary health care physicians tend to request fewer diagnostic tests and follow-up visits than their specialist counterparts. Evidence also suggests that additional investment in primary health care is more than offset by the resulting cost savings. These additional investments in primary health care can be made through alternative payment systems and salary incentives.

A study in the United States based on 3,737 adult office encounters with 132 family medicine physicians and 2,250 adult office encounters with 102 internists found that internal medicine physicians used twice as many blood tests, blood counts, chest x-rays and electrocardiograms as family medicine doctors.[17] A study in Colorado found that costs for patients enrolled in a primary health care physician program were 15% less than for those who did not have access to a regular primary care physician.[18] Finally, in the U.S. Medicare health insurance program for the elderly, research showed that expenditures per insured member decreased by 1% for every 10% increase in the supply of general practitioners or family medicine practitioners in a region.[19]

3.2 Paying Primary Care Group Practices

Currently, primary health care group practices in L'viv are funded using traditional line-item budgeting techniques. This budgeting approach offers minimal incentives to expand the primary health care system, to shift inpatient cases to outpatient settings when medically appropriate, or to encourage physicians to become primary health care practitioners. Alternative payment methods need to be adopted that are more favorable to

[17] Cherkin, D. et. al. *The Use of Medical Resources by Residency-Trained Family Physicians and General Internists: Is There a Difference?* Medical Care Vol. 25 (6): 455-469. June 1987.
[18] Fryer, G. *Evaluation of the Primary Care Physician Program* Colorado Department of Social Services. November 1991.
[19] Dor, A. and Holahan, J. *Urban-Rural Differences in Medicare Physician Expenditures* Inquiry 27:307-318. 1990.

primary health care. For example, per capita-based global budgeting for oblasts and rayons, as currently being proposed by the Ministry of Health and the L'viv Oblast Health Administration, will encourage greater use of primary health care as a cost-effective way to improve the health status of the population.

In addition, alternative payment methods to primary health care group practices such as per capita-based global budgeting, full or partial capitation of enrollees, case-based payments, or selective fee-for-service can also encourage greater use of PHC. These payment systems should be linked to acceptable rates of referrals to specialists and inpatient units to promote efficient use of integrated health care systems (e.g., discouraging primary care physicians from referring their patients to more expensive specialty services when unnecessary). A variety of mechanisms may be used to achieve this goal:

(a) salary incentives tied to referral rates;

(b) a group practice bonus/risk fund set aside and distributed to physicians only after certain performance indicators, including referral rates, are achieved.

In L'viv, salary incentives have been used on an experimental basis. The second mechanism has the additional advantage that it does not force the doctor to make a direct trade-off between his own financial well-being and patient treatment; instead financial risks and rewards are shared among all physicians in the practice and based upon average referral rates.

In general, salary incentives should be developed to reward primary health care and family medicine doctors who take on more responsibility for patient care. In the proposed group practices physicians should be able to address about 90% of patient complaints.

3.3 Private Sources of Funding for Primary Health Care

Primary health care should be promoted with public and private funding. User fees can be used to generate additional resources that can be re-invested in primary health care and to provide services which are currently unavailable due to severe lack of public budgets. In establishing prices for family medicine ambulatories, it is still important to retain an overall price structure that keeps prices lowest at the ambulatory and highest at the inpatient unit to discourage patients from by-passing primary health care centers. At City Hospital #1, fees were first introduced in the polyclinics and inpatient departments rather than in the family medicine ambulatories. Eventually, small fees will also be introduced there, since patient satisfaction surveys for the City Hospital #1 ambulatories show that patients are willing to pay for some services such as medicines, special diagnostic tests, and urgent care.

Primary health care groups can also contract with enterprises to provide basic curative and preventive care. City Hospital #1 had several such contracts, but hard

economic conditions have led many enterprises to default on their contractual payments. For details of the steps taken by City Hospital #1 to establish user fees, the reader is referred to Stevens and Wouters (1996).[20]

3.4 Preparing for New Payment Methods: Transferring Budget Authority

In Ukraine, as in other countries, reforms in health care financing that create macro- and micro-economic incentives for health care such as alternative payment systems and salary incentives will probably result in increased competition among primary health care group practices. For example, health care facilities will probably compete to enroll insured members of any mandatory health insurance fund system. In addition, ambulatories are already competing for enterprise contracts. Also, ambulatories need to attract paying patients. All of this means that primary health care group practices are going to have to expand their business management capabilities to survive in newly competitive markets.

In preparation for health care financing reforms including the likely introduction of some form of per capita-based budgeting proposed in L'viv, City Hospital #1 is taking some preliminary steps to decentralized budget authority to its family group practices to encourage their expansion and efficient use of services. This is based on the well-known management principle that decentralizing management and financial responsibility to those managers closest to the operations improves the efficiency and effectiveness of their services. Previously, City Hospital #1 recorded its budget in a lump sum without monitoring budgets for each of its four polyclinics or family medicine ambulatories. Budget authority rested fully with the chief economist of the hospital. Box 1 outlines the issues related to budget decentralization which are currently under discussion.

[20] Stevens, J. and Wouters, A. *Preparing a Hospital for Global Budgeting.* USAID Zdrav*Reform*. Abt Associates. November 1996.

Box 1.
Decentralizing Budget Authority to PHC Group Practices:
Preparing for Reforms in Health Care Financing

- *Budget Amount*: Estimate the historical department and ambulatory budget (e.g. last 2-3 years or other realistic period) as a basis for setting the future budget. Adjust for inflation, changes in volume of service or demographic conditions;
- *Population Coverage:* Identify the population covered by the ambulatory budget (e.g. rayon vs. non-rayon patients) and mechanisms for dealing with patients outside the covered population;
- *List of Services:* Clarify the expected standard list of services to be provided by the ambulatory clinic.
- *Bonus/Risk Fund:* Negotiate amount of ambulatory budget to be set aside as bonus/risk fund that will be allocated to physicians retrospectively based on various practice patterns, but especially referral patterns. Determine benchmarks for referral rates and other practice patterns;
- *Transferring Budget Authority:* Identify which budget articles are to be placed under the authority of the ambulatories and which budget articles will remain under the purview of City Hospital #1 central administration;
- *Flexibility in Use of Budget:* Clarify to what extent ambulatories have flexibility in using budget resources, e.g. developing their own salary incentive programs, purchasing equipment, etc.;
- *Performance Indicators:* Identify the list of volume indicators that will be used to monitor the overall performance of the ambulatories;
- *Budget Performance Reports:* Develop a budget performance reporting system;
- *Productivity Indicators:* Identify the list of productivity indicators that will be used to monitor physician practice patterns;
- *Productivity Reports:* Develop a productivity reporting system;
- *User Fees & Enterprise Contracts:* Clarify for what services user fees can be charged and what enterprises should be contacted;
- *Practice or Business Manager*: Identify a practice or business manager to be responsible for overall non-clinical operational aspects of the ambulatory.

3.5 Enhanced Business Management Systems

New payment systems described above will result in more financial and management autonomy for family medicine or small multi-specialty group practices, and as a result, they will need to establish sound business management systems in the areas of

accounting, budgeting, productivity, and marketing.[21] Importantly, many of these systems can be (and should be) designed and implemented before new payment systems are introduced. Health managers should experiment with transitional steps that gradually transfer new responsibilities to group practices. The main business management systems include:

- Information system: Patient registration and encounter statistics
- Accounting: expenses, revenues by department and function, systems of internal control
- Budgeting: annual budgets and budget performance reports
- Productivity: productivity reports and other performance indicators
- Marketing: advertisement, patient satisfaction surveys

All of these business management areas depend critically on a management information system, the core of which is a patient encounter data form designed to capture data on patient identifiers and characteristics, procedures, diagnosis, referral patterns, and physicians. Successful implementation of these business management tasks depends critically on designating a staff person as a practice manager to be responsible for supervising and/or completing these operational activities. These areas of business management are more fully described in the sections below. For more detail, the reader is referred to a manual on management accounting systems for health care organizations in the NIS.[22]

3.6 Patient Encounter Data Forms

At the heart of solid business management of a group practice is a well-thought-out patient encounter data form. An example of one being tested and computerized in City Hospital #1 is shown in Box 2:

This patient encounter form provides all the necessary statistics for monitoring group practice volume, budget performance, staff productivity and non-budget revenues earned. Standard reports should be designed as part of the computer software program so that they can easily be produced by the practice manager on a regular basis (weekly, monthly). Examples are shown in Boxes 3-5:

[21] Purvis, G. *Family Group Practice and Manadatory Health Insurance Fund Developments in the Issyk-kul Oblast, Karakol, Kyrgyzstan.* USAID Zdrav*Reform*. Abt Associates. May 1996.
[22] Wouters, A., and Else, B. *Implementing Management Accounting and Control Reforms in the NIS: A Manual for Health Care Organizations.* USAID Zdrav*Reform*, Abt Associates. April 1996.

Box 2. Patient Encounter Form

-Patient name
-Medical record number
-Diagnosis code
-Procedure code
-Patient Benefit Status
-Source of payment (or free service)
-Type of referral made
-New patient or existing patient
-Date of visit
-Treating physician
-Referral physician
-Price of service
-Price of medicine
-Total price
-Date of last entry

Box 3.
General Group Practice Statistical Report
(Prepared each week and month)

-Total visits
-Total number of first visits
-Number of follow-up visits
-Total number of procedures
-List of 10 most frequent procedures
-Total number of patients seen
-Total number of new patients seen
-Total number of old patients seen
-List of 10 most frequent diagnoses treated

Box 4. Group Practice Productivity Report
(Prepared each week and month)

-Average visit for each individual doctor (by name)
-Average visits for all doctors
-Average visits for each individual nurse (by name)
-Average visits for all nurses
-Referrals by each individual doctor (by name) to:
*ambulatory, polyclinic, and inpatient unit
-Referrals for all doctors to:
*ambulatory, polyclinic, inpatient unit

Some of these statistics are already collected at CH1, such as total visits, first visits and follow-up visits and procedures. Additionally, the number of new patients is important because it shows whether the facility is attracting new clients. Number of old patients indicates whether the facility is able to retain previous patients. The list of diagnoses provides simple information on recent case-mix patterns that will be helpful for interpreting productivity and performance reports. The list of most frequent procedures offers current summary information on physician practice patterns.

Physician productivity reports, in combination with information on quality of care, ensure that family medicine ambulatories operate efficiently and make appropriate use of the referral system, while maintaining good health care indicators. When private sources of funding are obtained (e.g., user fees, enterprise contracts, etc.), it becomes important to track revenues per doctor, department, and procedure to determine whether services are earning a surplus or a loss.

Box 5. Group Practice Revenue Reports
(User Fees, Enterprise Contracts, Other)
(Prepared each week and month)

-Total revenues per department
    -From user fees
    -From enterprise contracts
    -From other sources (e.g. insurance)
    -Total non-budget revenues
-Total user fee revenues per physician by name (amount & %)
-Total user fee revenues for each type of procedure (amount & %)
-Total number of visits by source of payment
    (free, user fee, enterprise, other)
-Average fee per visit
-Total number of free visits by type of patient
    (benefit, other exemption)
-Estimated maximum expected revenue per month
    (if all visits paid at average fee per visit)
-Actual revenue collected from patients per month
-Actual revenue as % of maximum revenue

3.7 Tracking Revenues and Expenses

Current Soviet line-item budgeting uses about 10 basic ledger accounts to track expenditures according to major functional categories such as salaries, nutrition, medicine, and so on. Expense information is usually tracked for the facility as a whole rather than by department. As private revenues expand to include types of private payments, and as different departments attempt to achieve partial self-financing, the basic accounting and bookkeeping system will need to be enhanced to track both revenues and expenses by department, by source of payer, and by functional category. City Hospital #1

is taking some preliminary steps in this regard by more carefully tracking the use of medications by department and by recording user fees by major subunit and department.

Ideally, the accounting system would be strengthened to support management decision-making by expanding the chart of accounts (list of accounting line items) to distinguish assets, liabilities, revenues, and expenses and by classifying revenues and expenses according to the division of authority and responsibility as set out in the organizational structure of the health facility. This system of responsibility accounting and reporting would classify expenses according to the major subunit and department incurring them and would classify revenues according to the subunit and department earning them. Since no two health facilities are, or should be, organized in precisely the same way, no two health facilities would necessarily use identical lists of accounting line items. Since health facilities in Ukraine must continue to adhere to Soviet accounting systems, the main point in this section is to encourage economists and accountants to experiment with developing some accounting subchapters that could facilitate tracking revenues and expenses while still following official accounting requirements.

Box 6. Budget Subaccounts to Support Decision-Making

Within the existing official of budget chapters, new subaccounts can be created for:

**revenues (for each source of payment),*
**expenses,*
**assets*
**liabilities*

Ideally a different subaccount would be set up for each of these 4 items for EACH organizational unit (e.g. major subunits, departments, ambulatories) in the health facility complex.

3.8 Systems of Internal Control

With increased management and financial autonomy, primary health care group practices must strengthen systems for preventing fraud and misuse of funds. Internal control systems seek to manage two types of risk: financial and accounting. Financial risk is the risk of losing assets such as medicines by illegal, inappropriate, or faulty policies/procedures. Accounting risks (also called bookkeeping risks) are typically represented as errors in records or reports which unintentionally or intentionally misstate the actual situation. By creating and implementing policies and procedures which deal with these risks, management is creating an environment of internal control. Internal control is not merely concerned with managing and controlling finances, but is equally concerned with having internal control over operational issues. With the introduction of user fees, three important principles should be remembered for handling cash. These principles have been instituted at CH1.

- *Internal Control Principle #1*: The health professional who authorizes the procedure or consultation should be different than the staff person who collects the cash;
- *Internal Control Principle #2:* The list of authorized procedures and consultations should be compared with cash collected on a daily basis by the manager with two other health staff present;
- *Internal Control Principle #3:* Cash deposits should be made each day to the bank with the signatures of at least two health staff present.

3.9 Budgeting and Budget Performance Reports

Most health facility budgets do not separate budgets by major subunits, by departments or by associated family group practices. In City Hospital #1, basic cost accounting techniques are being used to separate the budget for the family medicine ambulatories from Adult Polyclinic #2, which supervises the ambulatories. Creating separate budgets for each primary health care group practice is important because such budgets serve as the most basic planning tools. They also provide the mechanism for controlling operations to ensure that they are going as planned or to identify areas for correction. Decentralized budgeting systems provide useful information no matter what stage of payment reforms exists, although they clearly become more important as the group practice obtains autonomy, competes for business, and obtains new sources of non-budget funding.

The budget planning tool should keep track not only of planned and actual expenditures, as has been the focus in the past, but also revenues from all sources and key performance indicators, so that managers can see whether budgets are being used effectively and efficiently. The reader is referred to Box 3 for a summary of volume statistics from which to choose. Budget performance can be monitored regularly with what is called a budget variance report. This budget performance report compares planned and actual expenditures, revenues and performance statistics, and attempts to quantify reasons for differences (e.g. changes in volume or price of service, unexpected events, budget cuts, etc. For more details on budgeting, the reader is referred to Wouters and Else, 1996. The Practice Manager should be generating budget variance reports monthly, quarterly, and annually. The key to generating a good budget performance report is to have a good understanding of how the original planned budget was estimated, how actual budget figures and statistics are generated, and what might be the main reasons for any deviations from expectations.

Table 1. Simplified Budget Variance Report for PHC Group Practice: Month, Year				
Category	**Planned Budget**	**Actual Budget**	**Variance**	**Reason**
Statistics:				
-No. Visits				
-No. New patients				
-No. Referrals				
-No. Procedures				
Sources of Funds/Revenues:				
-Government				
-User Fees				
-Enterprises				
-Other				
Expenses:				
-Article 1				
-Article 2				
-Article 18				

3.10 Productivity Reports

Decentralizing management and financial authority to group practices should be accompanied by reporting systems that monitor not only deviations between planned and actual budgets, but also the productivity of the staff and other resources. Some of these productivity statistics are being tested at the CH1 ambulatory.

Under new forms of payment where group practices compete for patients (either through insurance plans, enterprise contracts, or user fees), group practices have to demonstrate to payers and patients that they are cost-effective. The success of attracting new sources of funds is dependent on the performance of each physician and observing which physician(s) are exhibiting the 'preferred' types of behavior and which are not. Monitoring this performance will allow physicians to learn from each other and to take corrective action when necessary. For example, if one physician's average referral rate is much higher than the average for the group practice, it would be useful to review his/her practice patterns to see whether these referral rates can be reduced. Since patient encounter forms also collect information on diagnosis, comparisons of physician productivity can take into account differences in case mix. Interpreting physician productivity statistics should allow for some variation among physicians, recognizing that they are likely to have different styles of treatment; nevertheless, eventually, all physicians should 'gravitate toward the mean'. Using additional data from the patient encounter forms and budget reports, physician productivity can be measured from several dimensions, as shown in Box 4 above. An example of a PHC group practice productivity report is given in Table 2 below.

Table 2. PHC Group Practice Productivity Report for Month, Year				
Category	**Doctor A**	**Doctor B**	**Doctor C**	**Comments**
Volume of Work:				
-total visits				
-new patients				
-home visits				
-procedures				
Referrals:				
-extra exams				
-polyclinic consultations				
-inpatient admission				
Revenues:				
-revenues from user fees				
-revenues from enterprises				
-other				
Practice patterns:				
-diagnostic tests per patient				

3.11 Marketing and Patient Satisfaction Surveys

As mentioned in the first section, primary health care groups will eventually need to operate in competitive market environments. This means that, in addition to having a clear handle on budgets and various performance indicators, ambulatories are going to have to take on more formal marketing activities including advertisements, distributing brochures and getting new patients by word of mouth from previous patients.

Marketing includes not only finding new patients, but retaining the existing clientele. This is critically related to achieving a high level of patient satisfaction. Through the Zdrav*Reform* Program, CH1 conducted a patient satisfaction survey of its family medicine ambulatories, the results of which were summarized in chapter 2. The survey instrument, which is provided in an appendix, was developed in collaboration with ZRP consultants, a Ukrainian Market Research firm, and CH1 health professionals. CH1 expects to use the survey instrument on a regular basis to monitor patient satisfaction. The key components of the patient satisfaction survey are listed in Box 7.

Box 7
Components of Patient Satisfaction Survey for CH1 Ambulatories

*Patient satisfaction with health facility and physician
*Treatment Patterns
*Patient Recommendations
*Willingness to Pay for Medical Services

3.12 The Group Practice Manager

Implementing all the new business management tools outlined in the previous sections requires designating a staff to assume the responsibility of the Practice or Business Manager. The main job of the Practice Manager is to maintain the financial and clinical information systems for the Primary Health Care Group Practice and to provide the physicians with information for decision-making. These reports are also submitted to the chief doctor and chief economist of the supervising health facility, who then use the information as needed for official purposes. The Practice Manager is also responsible for the internal control and financial integrity of all data and financial systems.

A variety of staffing arrangements can be used to fill this position. For example, the head group doctor, chief nurse or a deputy economist might assume this position on a part-time basis, or a new employee might be hired to become the practice manager for a network of two to three ambulatories. City Hospital #1 is considering using some of its financial support staff to assume these new responsibilities.

The scope of work for a Practice Manager might include the following and should require about 0.5 FTE (full-time equivalents) for one ambulatory clinic, or 1 FTE to cover two ambulatories.

1. Supervise collection of patient encounter forms from physicians and entering of data into computer daily and weekly.

2. Analyze patient encounter data, evaluate trends and provide information to the physician on the type of medical services the group practice provides and the level of referrals for other medical services. Prepare and present statistical and management reports to the head of the group practice, the chief economist and the chief doctor of the supervising health facility.

3. Develop a budget for the group practice and prepare a monthly budget variance report showing actual and budgeted revenues and expenses. This report should identify potential financial concerns and make recommendations for corrections.

4. Purchase supplies, equipment and other office items in accordance with the budget and be responsible for their safekeeping. Maintain an inventory of all equipment by source, ownership, date of acquisition, and condition.

5. Work with accounting department to record revenues and expenses of the PHC group practice and report on the financial status of the group practice.

6. Closely track referrals made to other associated polyclinics and inpatient units and attempt to coordinate records of polyclinics and inpatient units to determine the extent to which patient bypass the ambulatory clinics.

7. Develop performance and productivity reports for the group practice which compare physicians with the group on key indicators.

8. Initiate and participate in strategic planning for the group practice.

9. Evaluate patient and information flows and recommend improvements in operating procedures, including process for patient scheduling, referral and filing of information.

10. Develop an agenda for group practice staff meetings, in conjunction with group practice head physician, schedule meetings with staff, and participate in problem- solving and decision-making discussions.

11. Perform all other group practice-required duties as assigned by head physician, chief economist, and chief doctor of supervising health facility.

3.13 Recommendations on Economic Aspects

1. *Alternative Payment Methods* need to be adopted that are more favorable to primary health care and family medicine. Such methods would include per capita-based budgeting for oblasts and rayons, which is currently being used in L'viv Oblast. This needs to be followed up with payment methods to individual health facilities that also encourage more use of primary health care and family medicine practice groups such as global budgets, full or partial capitation based on number of enrolled members, payment per case, and selective fee-for-service.

2. *Salary Incentives* should be developed to reward primary health care and family medicine doctors who take on more responsibility for patient care.

3. *Private sources of funding* should supplement public funding. User fees, enterprise contracts and other experimental private payment methods should be tapped to support the expansion of primary health care group practices. Prices should be structured to discourage patients from bypassing primary health care doctors.

4. *Business management capacities* of primary health care and family medicine group practices need to be strengthened so that they can perform well in increasingly competitive markets and so that they can provide cost-effective health care. Key business management aspects include:

a. Gradual decentralization of budget authority to group practices;

b. Implementation of a management information system based on a patient encounter form;

c. Expand the number of accounting subaccounts to track revenues, expenses, assets and liabilities by organizational unit, while still being consistent with official accounting requirements;

d. Prepare budgets and budget performance reports on a monthly, quarterly and annual basis;

e. Prepare productivity reports on a weekly and monthly basis;

f. Implement marketing activities, including patient satisfaction surveys;

g. Identify a Practice Manager to supervise and take responsibility for business management aspects of the group practice.

APPENDIX A: EXAMPLE OF PATIENT SATISFACTION SURVEY

1. Are you assigned to this health facility?
   - 1 = yes (skip to question 4)
   - 2 = no

2. What was the reason you chose to come to this facility?
   - 1 = I prefer the physician who works here
   - 2 = Good general reputation of the health facility
   - 3 = Convenient location of the facility
   - 4 = Availability of medicines
   - 5 = Other (specify) _____

3. Where did you hear about this facility?
   - 1 = Friends
   - 2 = Medical employees of this facility
   - 3 = Medical employees of other facilities
   - 4 = Mass media (television, radio, periodicals)
   - 5 = Other (specify) _____

4. What is your illness or complaint?
   - 1 = Cough or Cold
   - 2 = Fever
   - 3 = Respiratory disease
   - 4 = Hypertension
   - 5 = Heart trouble
   - 6 = Diabetes
   - 7 = Cancer
   - 8 = Intestine trouble (diarrhea)
   - 9 = Minor trauma
   - 10 = Eye problem
   - 11 = Infectious disease
   - 12 = Preventive check-up
   - 13 = Other (specify) _____

5. What is your evaluation of the general and sanitary-hygienic condition of this medical establishment?

   - 1 = Excellent
   - 2 = Good
   - 3 = Requires improvement
   - 4 = Poor

6. How would you assess the professional level of the physician you have visited?

   - 1 = High
   - 2 = Average
   - 3 = Low

7. What are your main criteria of assessment of the professional level of a physician? (Choose no more than 3)

1 = Friendliness
2 = Kindness
3 = Intellect
4 = Knowledge of drugs
5 = Diagnostic knowledge
6 = Treatment Knowledge
7 = Other persons' opinion
8 = General care
9 = Other (specify) _____

8. Were you referred to a specialist during your current visit?

1 = Yes
2 = No

9. How many times have you made a visit to a physician(s) to set a diagnosis or to determine the illness (besides additional examinations)

1 = One
2 = Two
3 = Three
4 = More than three

10. Where have you been referred for examination (diagnosis)?

1 = This medical facility
2 = Other medical facility
3 = Was not referred

11. Where have you been referred for consultation?

1 = This medical facility
2 = Other medical facility
3 = Was not referred

12. Where have you been referred for hospital treatment?

1 = This medical establishment
2 = Other medical establishment
3 = Was not treated in hospital

13. Have you been hospitalized within the last year for the same illness you have today?

1 = yes
2 = no

14. Is there a need for the family medicine center/department (or therapeutic/pediatric) to work 24 hours a day (physicians(s) on duty)

15. (For family physician's patients) Since you've been treated by a family physician, how have the number of meetings with the physician changed?

1 = Increased
2 = Decreased
3 = Did not change

16. (For family physician's patients) Since you've been treated by a family physician, how did the number of ambulance calls change?

1 = Increased
2 = Decreased
3 = Did not change

17. Does your family (district) physician provide you with health education during your meetings?
1 = Yes
2 = No

18. Do you contact specialists before primary (preliminary) visits to your family (district) physician?
1 = Yes
2 = No

19. Do you think there should be a free choice of physician or should he/she be assigned according to the location principle?
1 = Free choice
2 = Assignment according to the location principle

20. If you had a choice, would you change your family physician?
1 = Yes
2 = No

21. If there was a need for hospital treatment, what would be your preferences?
1 = Hospital treatment
2 = Treatment at home
3 = Day treatment in a hospital/polyclinic

22. Would you like to pay for some additional medical services?
1 = Yes
2 = No (Skip to question 24)

23. What kind of medical services would you be ready to pay for?
1 = Physiological procedures
2 = Massage
3 = Urgent tests
4 = Additional injections
5 = Functional diagnostics
6 = Other (specify)_____

24. If you had free choice of health care facilities in the future, and if you had the same illness as today, would you return to this facility?
1 = Yes
2 = No
3 = Don't know

25. Will you recommend this facility to other people?
1 = Yes
2 = No
3 = Don't know

26. What is your highest level of education?
1 = Higher education
2 = Incomplete higher education

3 = Special secondary education
4 = Secondary education
5 = Incomplete secondary education

27. Year of birth: 19____

Thank you for answering this questionnaire

28. Sex:
    1 = Male
    2 = Female

29. Name of medical facility:
    1 = Family medicine Ambulatory Center at CH1
    2 = City Polyclinic No. 2
    3 = Adult Polyclinic #2 of the CH1
    4 = Children Polyclinic #2 of CH1

30. What physician have you consulted?
    1 = Family physician
    2 = Therapist
    3 = Pediatrician

31. Interviewer's name:_____
32. Date:_____